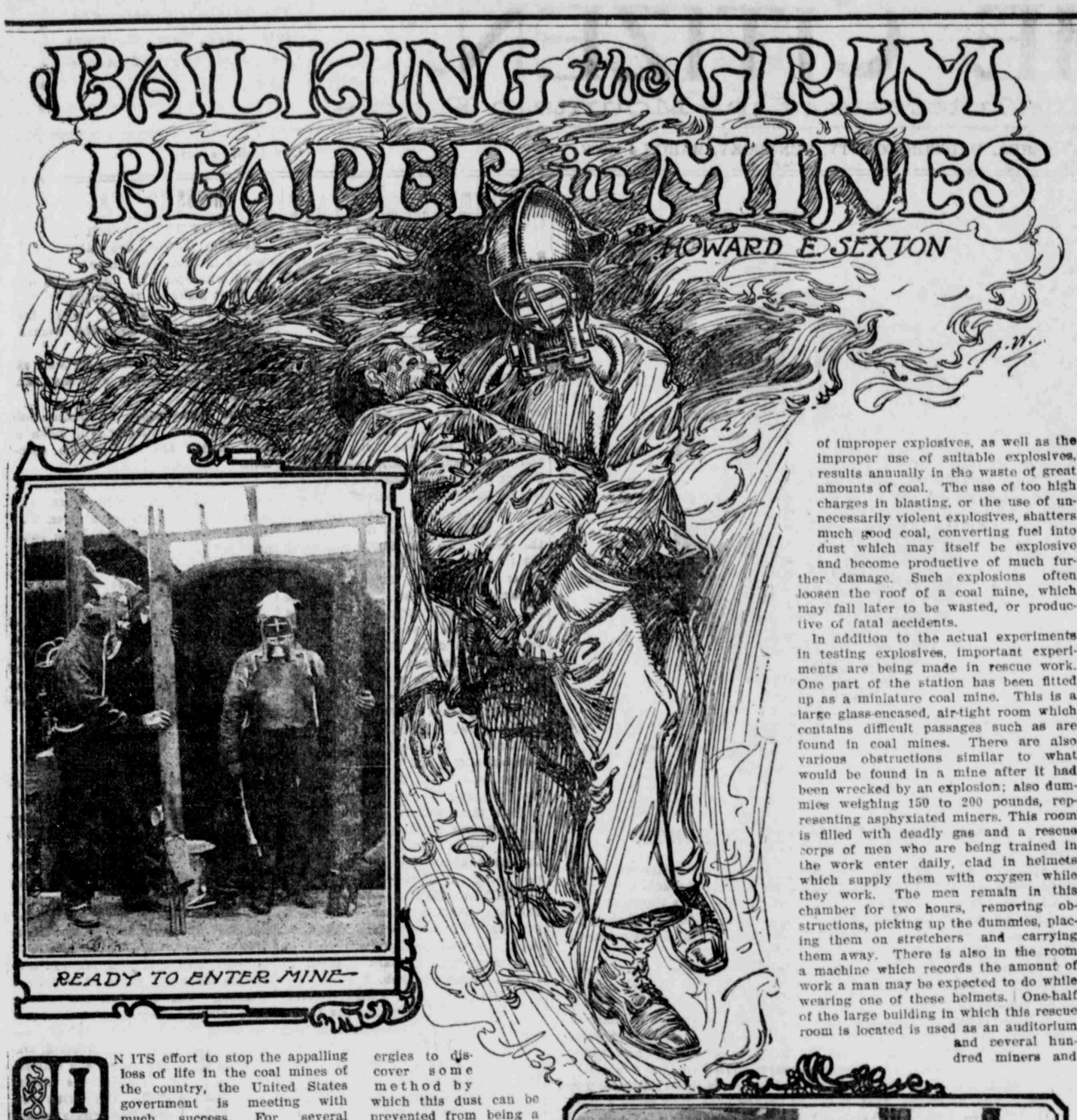
BALKING the GRIM REAPER in MINES

HOWARD E. SEXTON



READY TO ENTER MINE

IN ITS effort to stop the appalling loss of life in the coal mines of the country, the United States government is meeting with much success. For several months an experiment station, under the direction of the technologic branch of the United States geological survey, has been in operation at Pittsburg, Pa., with the purpose of discovering the causes of mine disasters and suggesting a remedy.

Along with establishment of this station and the agitation which preceded the necessary legislation, there has been a falling off in the number of deaths in the coal mines for the year 1908, and while the official figures have not yet been obtained, it is stated that the number of deaths will be several hundred less than in 1907, which was an unusual year. In December, 1907, four explosions took the lives of 700 men, one of them—at the Monongah mine in West Virginia—being the greatest mining disaster in the history of this country. There were 356 victims. During 1908, there were but two accidents in which the loss of life was very heavy; one in January at the Hanna mine, in Wyoming, with a loss of 70 men; the other, November 28, at the Marianna mine in Pennsylvania, which resulted in 154 deaths.

Already at the experiment station two discoveries have been made which will tend to decrease the number of deaths in the mines. It has been demonstrated that a number of the so-called "safety" explosives are anything but safe, in fact the statement is made that with the present explosives used in mining, the miner takes his life in his hand every time he touches off a fuse. It is the purpose of the government to continue these experiments until the explosives of the country are standardized in such a manner that the miner will have a definite idea what these explosives will do.

After the government has gone far enough in its experiments, a bulletin will be issued recommending as permissible explosives such as stand the test. The facts learned concerning these explosives will be called directly to the attention of the state mining bureaus as well as the operators.

Perhaps the most important and far-reaching experiments so far at the station are those in which it has been definitely shown that coal dust is an explosive equally as dangerous as the deadly fire damp. This has been a mooted question among mining engineers and miners alike, both insisting that it is impossible to explode coal dust unless there is gas present. That the coal dust will explode in the mine where there is no gas has been repeatedly shown to several hundred operators and miners at the testing station. The experts at the station are now bending their energies to discover some method by which this dust can be prevented from being a serious menace to the miners. Experiments in wetting it have been going on for some time, but nothing of a very definite nature has as yet been learned, unless it is the fact that the coal dust does not ignite when there is a great amount of moisture in it.

Every effort is being made at the station to come as close to the conditions in a mine as possible. The tests of various dynamites and powders used in blasting coal are being made in a mammoth boiler plate cylinder which has previously been filled with gas or coal dist. The cylinder is 100 feet long and six feet in diameter. Safety valves have been placed all along the top and are left unfastened in such a manner that whenever there is an explosion the valves fly open on their hinges. A series of portholes on the side, covered with one-half inch glass, enables those conducting the experiments to witness the results from an observation house 60 feet away. An explosive mixture of fire damp and air, or coal dust and air, is pumped into the cylinder and the explosive which is to be tested is shot into it from one end of the cylinder, so that the flame goes right into the fire damp or coal dust. Natural gas is used at this station for fire damp, because it corresponds very closely to this deadly gas. The cannon in which the explosives are placed is fired by electricity from the observation house which is parallel with the cylinder itself.

These investigations are expected to accomplish a double purpose; not only a reduction in the number of men killed in the mines, but also a saving of the waste in mining coal. The use of improper explosives, as well as the improper use of suitable explosives, results annually in the waste of great amounts of coal. The use of too high charges in blasting, or the use of unnecessarily violent explosives, shatters much good coal, converting fuel into dust which may itself be explosive and become productive of much further damage. Such explosions often loosen the roof of a coal mine, which may fall later to be wasted, or productive of fatal accidents.

In addition to the actual experiments in testing explosives, important experiments are being made in rescue work. One part of the station has been fitted up as a miniature coal mine. This is a large glass-encased, air-tight room which contains difficult passages such as are found in coal mines. There are also various obstructions similar to what would be found in a mine after it had been wrecked by an explosion; also dummies weighing 150 to 200 pounds, representing asphyxiated miners. This room is filled with deadly gas and a rescue corps of men who are being trained in the work enter daily, clad in helmets which supply them with oxygen while they work. The men remain in this chamber for two hours, removing obstructions, picking up the dummies, placing them on stretchers and carrying them away. There is also in the room a machine which records the amount of work a man may be expected to do while wearing one of these helmets. One-half of the large building in which this rescue room is located is used as an auditorium and several hundred miners and operators have watched the rescue drill through the large glass windows which separate the auditorium from the gas-filled chamber. Although there has been but little opportunity so far for the rescue corps to demonstrate its efficiency at the mines, still it has done some good work.

Once the helmeted men while fighting a mine fire succeeded in bringing an unconscious man to a place of safety, where he was given oxygen treatment and recovered his senses in a short time.

It is not the intention of the United States government to furnish rescue corps whenever there is a disaster. The present corps was organized with the idea of encouraging the mine owners and miners themselves to form such organizations. Invitations have been issued to operators throughout the country to send picked men to the experiment station, where they may watch the government rescuers at work and later go through the same training themselves, in order that they may gain the necessary confidence in the use of these helmets. Already a number of the large mining companies have taken advantage of this invitation and are organizing rescue corps at their mines, fully equipped with oxygen helmets.

In 1907 more than 3,125 men were killed in the coal mines of the country—a death rate of 4.86 for every 1,000 men employed. This is from three to four times as many men per thousand as are killed in any coal-producing country of Europe, where experimental stations such as the one in Pittsburg have been in operation for several years.

RESCUE PARTY AT WORK

EXPLOSIVES GALLERY

AFTER A COAL DUST BLAST

Full Beards for Farmers.

The protection of farmers and others who are exposed to the heat a great deal is a serious and difficult matter. Cancer is on the increase, and farmers furnish a large proportion of the cases, many of them being due to the direct effects of sunlight on the face and hands. A full beard for the farmer is most desirable for his protection.

"SKINNY" GOT EVEN

FAT MAN'S MIRTH BROUGHT TO A SUDDEN END.

Things Moved When This Particular Worm Turned—Always Well to Know Just with Whom You Are Joking.

The thin man waited on the corner for the car. His overcoat was tightly buttoned across his narrow chest, and its collar jutted out behind like the rim of a funnel. His hat was pulled down until it rested on his ears and looked as though it had been intended for some one with a head four sizes larger than his. His eyes were red and his nose was blue, and his mustache was about half icicles with his frozen breath. Under each arm he held an assortment of packages which he was going to take down-town with him.

The fat man came blustering along and stood on the corner also. His overcoat was thrown open to the wind.

The thin man looked at him with eyes that had the appearance of two shoe buttons.

The fat man looked at the thin man and a wide, joyous smile stretched itself across his features.

"Some snow, ain't it?" he shouted, jovially, his fat sides shaking as he contemplated the hunched-over attitude of the thin man. "Some wind, too! Wow! Ain't she a corker? Don't you like it? Why don't you learn to like it? S' long as we've got it we might as well like it, huh? Gee! You're a sight, you are. You look like a ten-cent thermometer, you do! Wish you could see yourself standing there, with those bundles in your arms. I bet your fingers are so cold they burn your gloves! And your nose—say, it looks like a spoiled pickle. And look at your hat! Say, the snow isn't doin' a thing but slidin' off it and down your coat collar! Well, you are a sight to behold! Ha, ha! Ho, ho! Hi! hi!"

He shook and shook and laughed and laughed until he had to lean against the lamp post to support himself, and all the time the thin man's eyes grew redder and his nose grew bluer and his face grew whiter until—

"Ow! Ow! Whazzamatter!" yelled the fat man as the thin man suddenly kicked his feet from under him and with a sidewise scrape of his own foot shoveled a lot of snow into the fat man's eyes and ears after he fell.

The conductor of the car that stopped at the corner at that moment wondered somewhat why a large fat man was scrambling about in the snow looking for cigars and pencils and things, and why a shriveled, thin man, with red eyes and a blue nose and both arms laden with bundles, smiled merrily all the way down town, although the other passengers were demanding that the car have more heat. —Chicago Evening Post.

Suggests Lunch Menus.

A young woman, a public school teacher in a New York suburb, has formed a lunch club for the mothers of her pupils, to assist them in putting up suitable school lunches for their children. She noticed that the majority of her pupils brought a few cents to school each day and with the money bought their lunch at a shop near by. As a rule they bought the very things they should not have. One delicate little girl made her lunch on three pickles and a roll, another on two chocolate eclairs, for which she paid five cents, and a boy who seemed to have a healthy appetite would get a ham sandwich. The teacher, believing the trouble to be ignorance rather than laziness, has prepared a series of short talks to mothers on the need of good food for the growing child. She will also give recipes and suggests lunch menus, show how the lunch boxes may be packed attractively and when necessary teach the way the various dishes should be cooked.

"Mole Tequop."

Col. Hugh L. Scott, superintendent of West Point, is credited with being more familiar with the life and personality of the American Indian than any other living man. Col. Scott has had the confidence of the Indians with whom he came into contact ever since the day of his first service in the army at Fort Abraham Lincoln, Dakota.

He was appointed a lieutenant at that post in June, 1876. In the round of garrison duty, guarding a cattle trail through the Comanche reservation and regulating "sooners" on public lands he made so thorough a study of Indian customs and languages that he became the best versed white man in the intertribal sign language, by which the Indian tribes speaking different languages communicate. To the red man Col. Scott became "Mole Tequop"—"the man who talks with his hands."—Hampton's Magazine.

Same Old Style of Cooking.

Prof. Snaggs—Strange there's been no improvement made in cooking in the last 2,000 years. Now, down at my boarding house this morning I had a steak broiled in the regular Pompeian style.

Boggs—Pompeian style? How do you mean?

Prof. Snaggs—Why, scorched to a cinder on one side and covered with ashes on the other.

A Color Tragedy.

"Why does Miss Fashionplate look so black?"

"I think it is because she is blue over the yellow outlook for her pink tea."

TEMPERANCE NOTES

SOWING TO THE WIND.

A True Story from Life of a Man Who Failed.

C. N. Broadhurst tells the following story in the Home Herald and declares that it is strictly true. He says: Mr. George Smith was the leading merchant of the city of M——. His big department store was well managed and largely patronized. It was a common saying among his friends that "Smith's store was a gold mine which was making him rich." He aspired to be the wealthiest man in his city—a municipality of a little more than 7,000 population. An increasing desire to be the city's next mayor was also a burning ambition of his life. He ranked high in religious circles and was president of the official board of the church to which he belonged.

Mr. Smith had a model family. Mrs. Smith was a brilliant and accomplished woman, admired by her large circle of friends. She was also very active and efficient in both church and temperance work. Their two children, John, a fine young man of 19, and Mary, 17 and beautiful, had just graduated with honors from the high school.

Ten saloons, whose revenue flowed into the municipal treasury, and whose stream of destruction swept into the homes and lives of a large number of its inhabitants, were thoroughly intrenched in M——. A local option election was to occur Tuesday.

At the breakfast table in the Smith home Tuesday morning, Mrs. Smith suggested to her husband the propriety of advising his corps of clerks who possessed the right of suffrage to go to the polls and vote in the interest of temperance.

"I certainly shall do as you suggest," said the husband.

Reaching his office in the great store building Smith sat down in the chair at his desk and threw himself back in a restful position.

Just then the office door opened and Tom Jones, the leader of the political party with which he was tenaciously affiliated, stood by his side.

"Smith," said Jones, sympathetically, "I have tried to place myself in your position, and study this question from your viewpoint, and the invariable conclusion at which I arrive is, that if this town goes 'local option,' to-day, your loss financially will be immense, and politically you are ruined. You have reached the golden opportunity of your life. If you will only improve it your political and financial ideals can be realized. You are, so you told me the other day, trying to buy a stock of goods from a merchant in the town of S——, ten miles from here. Take Foster and Black, two of your clerks, with you to help inspect the stock. They will both vote 'dry' if they stay. Leave on the nine o'clock train, with the understanding that you are to return on the train that arrives here at three this afternoon. Accidentally miss that train. Your next train will arrive here at eight. The polls close at six. The 'drys' will lose three votes and the 'wets' will win the day." And Tom Jones, the party boss, left the office.

The polls closed at four, and by seven o'clock the votes were all counted, and it was discovered that the saloons had won the victory by only one vote!

Mrs. Smith, with the W. C. T. U. ladies, had worked hard all day, and only returned to her beautiful suburban home at the closing of the polls. When the telephone brought her the message as to the result of the election, she sat down in a large rocking chair and wept as if her heart would break.

At this time John came into his mother's room.

"Mother," he said, "I want to take sister driving this evening. The eight o'clock train is reported half an hour late, so we will have plenty of time to go for a good drive before we go to the station to drive father home. With your consent, I will take the black team and the carriage."

"Certainly," replied his mother; "the drive will do you both good."

The saloons and their supporters were mad with excitement, crazed with rum.

"John, I am afraid the horses will run away; they are getting scared. Can you hold them?"

"I think so," he answered, as he wrapped the lines around his hands and gave them a harder pull. Just then a drunken man drew a revolver from his pocket and fired it in the air. This so frightened the horses that they became unmanageable.

John, entangled in his lines, was dragged and beaten into a shapeless pulp against the brick pavement. Mary was instantly killed by the collision.

The minister was at the train to meet the belated train and break the awful news to the stricken father.

"Oh, my God! Is it true?" he exclaimed.

He went home a broken-hearted man, and when months later the nomination for mayor was offered him he exclaimed:

"Mayor! I would not accept the office under any consideration. I am forever openly and publicly on the side of temperance and right. I voluntarily placed the curse of rum on this city, on my home, because I refused to vote. I have sowed to the wind and have reaped the whirlwind."